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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/731,874	12/09/2003	Ruben F. Lah	9312.52	6740

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EXAMINER	
LEUNG, JENNIFER A	

ART UNIT	PAPER NUMBER
1764	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/731,874	LAH, RUBEN F.	
	Examiner	Art Unit	
	Jennifer A. Leung	1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 June 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-58* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-58* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Jennifer A. Leung 8/31/07

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *7-6-07*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's amendment submitted on June 18, 2007 has been received and carefully considered. Claims 1-58 are currently active.

Upon further consideration, a requirement for election/restriction has been made by the Examiner, due to the serious burden imposed in conducting a thorough search and examination of the many different valves and valve embodiments being claimed.

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-10, drawn to a coke drum de-header system comprising a de-header valve, classified in class 202, subclass 245.

II. Claims 11-16, drawn to a plug-type deheader valve, classified in class 251, subclass 309.

III. Claims 17-22, drawn to a ball-type de-header valve, classified in class 251, subclass 315.01.

IV. Claims 23-28, drawn to an adjusting wedge gate-type de-header valve, classified in class 251, subclass 193+, 203.

V. Claims 29-34, drawn to a flexible wedge gate-type de-header valve, classified in class 251, subclass 193+, 203.

VI. Claims 35-40, drawn to a parallel slide gate-type de-header valve, classified in class 251, subclass 193+, 195.

VII. Claims 41-46, drawn to a solid wedge gate-type de-header valve, classified in class 251, subclass 327.

VIII. Claims 47-52, drawn to a sliding blind gate-type de-header valve, classified in class 251, subclass 326+.

IX. Claims 53-58, drawn to a globe-type de-header valve, classified in class 251, subclass 84.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed, because claim 1 does not require that the de-header valve comprising a plug-type valve having the structure recited in claim 11. The subcombination has separate utility, such as a valve for regulating the flow of fuel gas, air or waste gas to the regenerative or fuel areas of a by-product coke oven, as evidenced by U.S. 1,656,355 to Huffmann (FIG. 5; column 1, lines 1-15).

Inventions I and III are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed, because claim 1 does not require that the de-header valve comprise a ball-type valve having the structure recited in claim 17. The subcombination has separate utility, such as a valve for controlling the flow of a fluid containing abrasive particles, e.g., drilling mud. Also, the

valve may simply be used as an ordinary flow control device. See U.S. 2,734,715 to Knox (column 1, lines 64-71; FIG. 2).

Inventions I and IV are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed, because claim 1 does not require that the de-header valve comprise an adjusting wedge gate-type valve having the structure recited in claim 23. The subcombination has separate utility, such as a valve for high pressure and high temperature steam service, as evidenced by U.S. 3,215,399 to McInerney et al. (see FIG. 1; column 1, lines 12-24).

Inventions I and V are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because claim 1 does not require that the de-header valve comprise a flexible wedge gate-type valve having the structure recited in claim 29. The subcombination has separate utility, such as a valve for controlling the flow of highly superheated steam, as evidenced by U.S. 2,562,285 to Timmer (see column 2, lines 15-19; FIGs. 1, 3).

Inventions I and VI are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require

the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because claim 1 does not require that the de-header valve comprise a parallel slide gate-type valve having the structure recited in claim 35. The subcombination has separate utility such as a valve for sealing a gas stream comprising contaminants of subliming substances, dust-laden gases, and highly contaminated liquid media, e.g., in coal gasification plants, incinerating plants, chemical plants, pipelines or the like, as evidenced by U.S. 5,116,022 to Genreith et al. (see column 1, lines 15-30; Figs. 1, 2).

Inventions I and VII are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because claim 1 does not require that the de-header valve comprise a solid wedge gate-type valve having the structure recited in claim 41. The subcombination has separate utility such as a valve for regulating flow in steam, water, and gas pipes or mains, as evidenced by U.S. 176,321 to Kromer et al. (see FIG. 1; column 1, second paragraph).

Inventions I and VIII are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant

case, the combination as claimed does not require the particulars of the subcombination as claimed because claim 1 does not require that the de-header valve comprise a sliding blind gate-type valve having the structure recited in claim 47. The subcombination has separate utility such as a valve for controlling the flow of highly abrasive materials, such as a coal-ash/anthracene oil slurry, or liquids and slurries in general, as evidenced by U.S. 4,174,728 to Usnick et al. (see column 4, lines 57-60; column 5, lines 47-56; FIGs. 1-6).

Inventions I and IX are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because claim 1 does not require that the de-header valve comprise a globe-type valve having the structure recited in claim 53. The subcombination has separate utility such as a valve for controlling the flow of crude oil and products in pipelines during refining, as evidenced by U.S. 1,991,621 to Noll (see column 1, lines 1-50; FIGs. 1, 2).

Inventions II and III/IV/V/VI/VII/VIII/IX are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different designs, modes of operation, and effects (MPEP § 802.01 and § 806.06). In the instant case, the different inventions are not connected in design, operation, or effect and therefore the facts relied on for this conclusion are in essence the reasons for insisting upon restriction.

Inventions III and IV/V/VI/VII/VIII/IX are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different designs,

modes of operation, and effects (MPEP § 802.01 and § 806.06). In the instant case, the different inventions are not connected in design, operation, or effect and therefore the facts relied on for this conclusion are in essence the reasons for insisting upon restriction.

Inventions IV and V/VI/VII/VIII/IX are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different designs, modes of operation, and effects (MPEP § 802.01 and § 806.06). In the instant case, the different inventions are not connected in design, operation, or effect and therefore the facts relied on for this conclusion are in essence the reasons for insisting upon restriction.

Inventions V and VI/VII/VIII/IX are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different designs, modes of operation, and effects (MPEP § 802.01 and § 806.06). In the instant case, the different inventions are not connected in design, operation, or effect and therefore the facts relied on for this conclusion are in essence the reasons for insisting upon restriction.

Inventions VI and VII/VIII/IX are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different designs, modes of operation, and effects (MPEP § 802.01 and § 806.06). In the instant case, the different inventions are not connected in design, operation, or effect and therefore the facts relied on for this conclusion are in essence the reasons for insisting upon restriction.

Inventions VII and VIII/IX are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different designs, modes of operation, and effects (MPEP § 802.01 and § 806.06). In the instant case, the different inventions are not connected in design, operation, or effect and therefore the facts relied on for

this conclusion are in essence the reasons for insisting upon restriction.

Inventions VIII and IX are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different designs, modes of operation, and effects (MPEP § 802.01 and § 806.06). In the instant case, the different inventions are not connected in design, operation, or effect and therefore the facts relied on for this conclusion are in essence the reasons for insisting upon restriction.

The examiner has required restriction between combination and subcombination inventions. Where applicant elects a subcombination, and claims thereto are subsequently found allowable, any claim(s) depending from or otherwise requiring all the limitations of the allowable subcombination will be examined for patentability in accordance with 37 CFR 1.104. See MPEP § 821.04(a). Applicant is advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application.

Because these inventions are independent or distinct for the reasons given above and there would be a serious burden on the examiner if restriction is not required because the inventions have acquired a separate status in the art in view of their different classification, because the inventions require a different field of search (see MPEP § 808.02), and/or because the inventions have acquired a separate status in the art due to their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

3. If Group I is elected, Applicant is additionally required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no

generic claim is finally held to be allowable. Currently, claim 1 is generic.

This application contains claims directed to the following patentably distinct species:

a. the de-header valve is a plug valve;

b. the de-header valve is a ball valve;

c. the de-header valve is a globe valve;

d. the de-header valve is a flexible wedge gate valve;

e. the de-header valve is a parallel slide gate valve;

f. the de-header valve is a solid wedge gate valve; and

g. the de-header valve is a sliding blind gate valve.

The species are independent or distinct because the various valves are not disclosed as being capable of use together, and the various valves each have different designs, modes of operation, and effects.

4. Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37

CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

Information Disclosure Statement

5. Applicant should note that the large number of references in the IDS submitted on July 6, 2007 have been considered by the Examiner in the same manner as other documents in Office search files are considered by the examiner while conducting a search of the prior art in a proper field of search. See MPEP 609.05(b). Applicant is requested to point out any particular references in the IDS which they believe may be of particular relevance to the instant claimed invention in response to this office action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A. Leung whose telephone number is (571) 272-1449. The examiner can normally be reached on 9:30 am - 5:30 pm Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Glenn A. Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jennifer A. Leung

Jennifer A. Leung
August 31, 2007